CLAIMS

1. Connecting element (10) for a spinal fixing system, intended to connect at least two implantable connection assemblies, characterised in that the connecting element consists of a rod comprising a flexible part (11) extended at one of its ends at least by a rigid part (12), the said flexible part (11) comprising a cable (13) at least partly surrounded by a polymer envelope (14), the said cable consisting of at least one elastic strand coaxial with the said envelope (14).

2. Connecting element (10) according to claim 1, characterised in that the said rigid part has a blind cavity (15) intended to receive the said cable (13) at least partly.

3. Connecting element (10) according to claim 1, characterised in that the said rigid part has a through cavity (15) intended to receive the said cable (13) at least partly.

4. Connecting element (10) according to claim 2 or claim 3, characterised in that the said cavity (15), is configured so as to cooperate with the cable (13).

5. Connecting element (10) according to any one of claims 2 to 4, characterised in that the said cavity (15) has a zone (16) widened in the direction of the end receiving the said cable (13).

6. Connecting element (10) according to any one of claims 1 to 5, characterised in that the flexible part (11) is fixed to the rigid part (12) by adhesive bonding, crimping or welding.

7. Connecting element (10) according to any one of the preceding claims, characterised in that the cable (13) comprises at least one layer (4) of at least 6 strands (40), the said strands being distributed around the said central strand.

8. Connecting element (10) according to any one of the preceding claims, characterised in that the said cable comprises two successive layers of strands disposed around the said central strand, the first layer of strands surrounding the said central strand consisting of 6 strands, the second layer of strands surrounding the said first layer consisting of 12 strands.

9. Connecting element (10) according to claim 7 or claim 8, characterised in that the strands constituting the layer or layers consist of strands twisted around the said central strand.

10. Connecting element (10) according to any one of claims 7 to 9, characterised in that the strands of the layer or layers are formed from a material different from that of the said central strand.

11. Connecting element (10) according to any one of claims 7 to 10, characterised in that the central strand has a diameter different from that of the strands of the said layer or layers.

12. Connecting element (10) according to any one of claims 7 to 11, characterised in that the strands constituting the layer or layers consist of titanium or stainless steel, or titanium-nickel alloy.

13. Connecting element (10) according to any one of claims 1 to 12, characterised in that the central strand is tubular.

14. Connecting element (10) according to any one of claims 1 to 13, characterised in that the central strand is formed from an alloy of nickel-titanium, titanium, stainless steel or polymer.

15. Connecting element (10) according to the preceding claim, characterised in that the central strand is made from PEEK or polyurethane.

16. Connecting element (10) according to any one of claims 1 to 15, characterised in that the said envelope (14) is made from polyurethane.

17. Connecting element (10) according to any one of claims 1 to 15, characterised in that the said envelope (14) is made from PEEK.

18. Connecting element (110) according to any one of claims 1 to 15, characterised in that the said envelope (14) consists of a biocompatible fabric.

19. Spinal fixing system comprising at least two implantable connection assemblies connected by means of at least one connecting element (10) according to any one of claims 1 to 18.